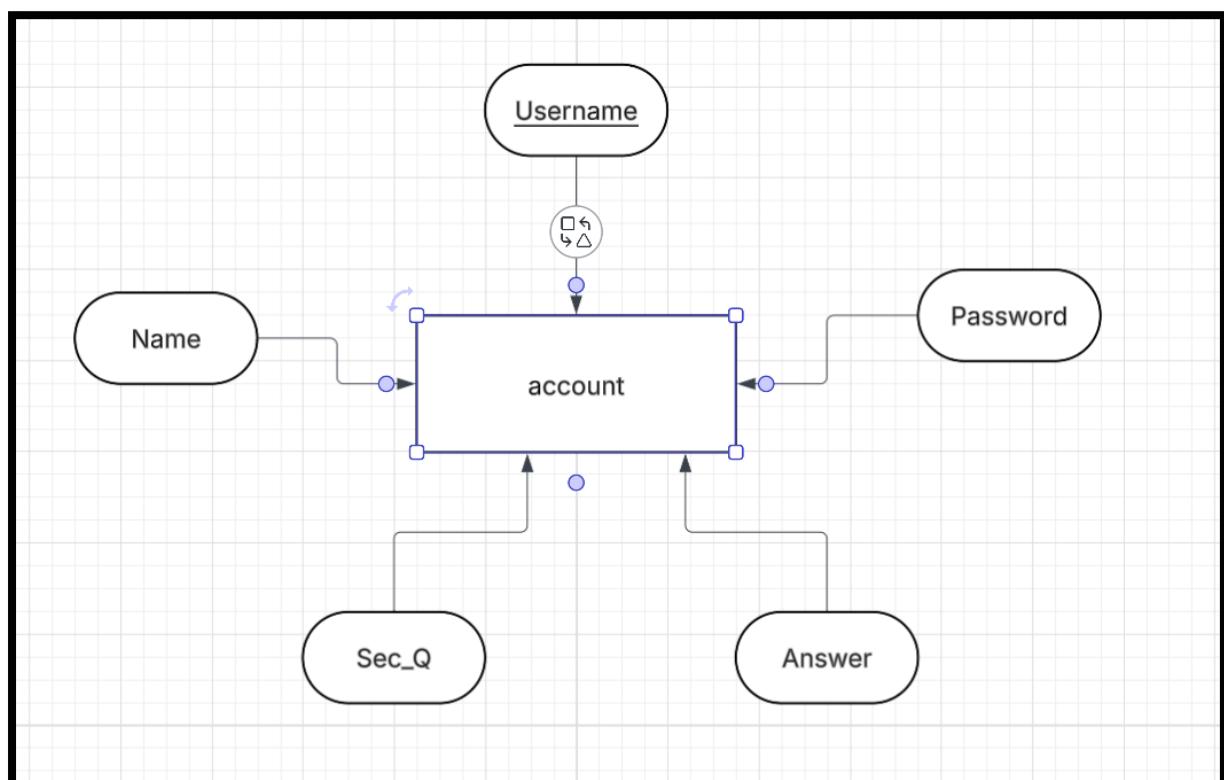


## Account Table:-

To create the **Account** table, we first identified the required information that needs to be stored for each user. The table includes the following attributes:

1. **name** – Stores the full name of the user.
2. **username** – A unique identifier chosen by the user for login.
3. **password** – Stores the user's password in a secure format.
4. **security\_question** – A question selected by the user for account recovery.
5. **answer** – The answer to the security question, used for verification.

After deciding the attributes, we designed the table structure so that each field has an appropriate data type. The **username** is kept unique to avoid duplicates. The **password** and **answer** should ideally be stored in an encrypted or hashed format for security.

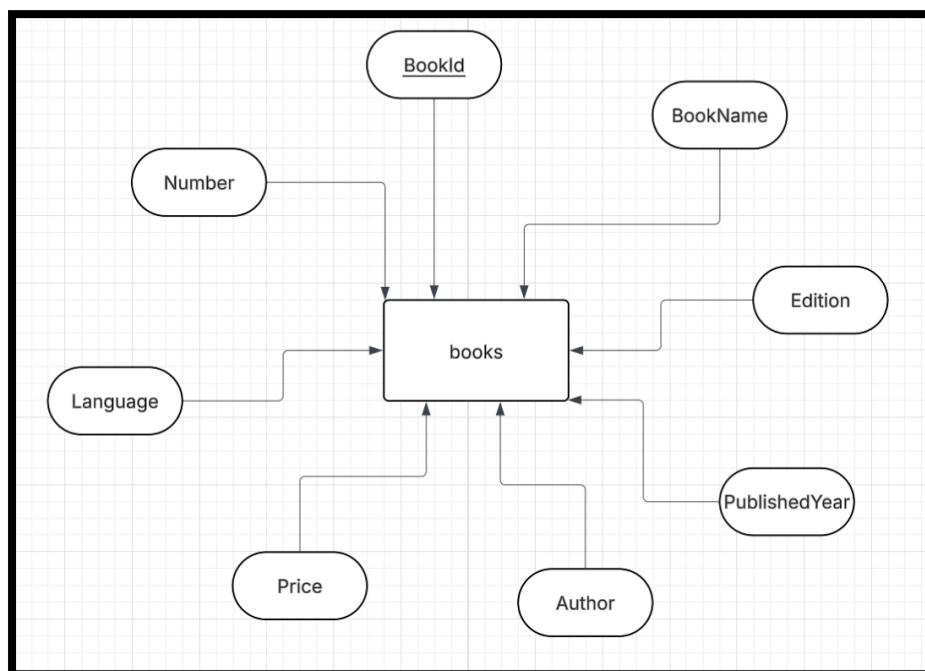


## Books Table:-

To create the **Book** table, we first identified all the details that need to be stored for each book in the system. The table includes the following attributes:

1. **bookId** – A unique identifier for each book.
2. **bookName** – The title of the book.
3. **edition** – The edition number of the book (e.g., 1st, 2nd, 3rd).
4. **publishedYear** – The year in which the book was published.
5. **author** – The name of the author of the book.
6. **price** – The cost of the book.
7. **language** – The language in which the book is written.
8. **noOfCopies** – The number of copies available.

Once the attributes were finalized, we planned suitable data types for each field. The **bookId** is kept as a primary key to uniquely identify each record. Text-based fields like bookName, author, and language use string data types. Numeric fields like edition, publishedYear, price, and noOfCopies use number-based data types.

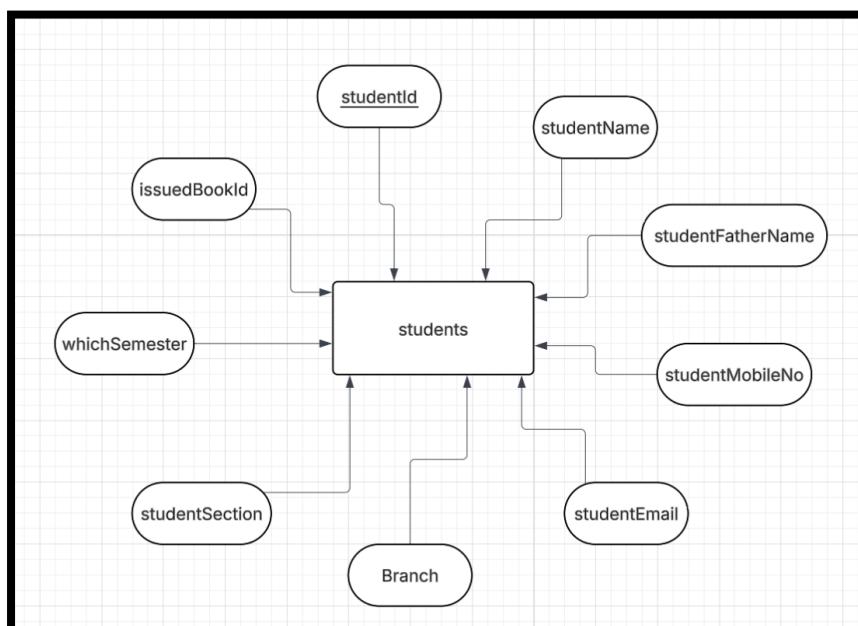


## Student Table:-

To create the **Student** table, we first identified all the information that needs to be stored for each student. The table includes the following attributes:

1. **studentId** – A unique identification number for each student.
2. **studentName** – The full name of the student.
3. **studentFatherName** – The name of the student's father.
4. **studentMobileNo** – The mobile phone number of the student.
5. **studentEmail** – The email address of the student.
6. **branch** – The academic branch or department of the student (e.g., CSE, ECE).
7. **section** – The section in which the student studies (e.g., A, B).
8. **semester** – The semester the student is currently in.
9. **issuedBookId** – The ID of the book issued to the student (this may act as a foreign key linked to the Book table).

Once all the attributes were finalized, we selected appropriate data types for each field. The **studentId** is set as the primary key to uniquely identify each student. Fields like studentName, fatherName, branch, and section use string data types. Numeric and email fields use formats suitable for their data type. The **issuedBookId** can be linked to the Book table for maintaining relationships.



## Conclusion :-

The Student table was created by identifying all essential details needed for each student and assigning suitable data types to every attribute. The **studentId** was set as the primary key to uniquely identify records, while other fields store personal, academic, and book-issue information. This structured design ensures proper data storage, easy access, and efficient management of student records.